AMENDMENTS TO THE CLAIMS

1. – 27. (Cancelled).

28. (Currently Amended) A system comprising a macroscale device which is interfaced with a microscale device ~~at an interface~~ using double-sided tape to form a stable association between the microscale device and the macroscale device, wherein the double sided tape comprises a first adhesive surface which associates with the macroscale device and a second adhesive surface which associates with the microscale device, wherein the microscale device has at least one microchannel.

29. (Currently Amended) A system comprising a macroscale device which is interfaced with a microscale device ~~at an interface~~ using transfer tape to form a stable association between the microscale device having at least one microchannel and the macroscale device, wherein the transfer tape comprises a backing to which an adhesive surface is separably attached and wherein a bond between the adhesive and the backing is weaker than a bond between the adhesive and the macroscale or microscale surface.

30. (Currently Amended) The system according to any one of claims 28, 29, 48 or 49 ~~claim 28 or 29~~, wherein the microscale device is a microfluidic device.

31. (Currently Amended) The system according to any one of claims 28, 29, 48 or 49 ~~claim 28 or 29~~, wherein the microscale device is a MEMS device.

32. (Cancelled)

33. (Original) The system according to claim 30, wherein the microfluidic device comprises a plurality of microchannels.

34. (Previously Presented) The system according to claim 30, wherein the microchannels correspond in number to the number of wells in a microtiter plate.

35. (Previously Presented) The system according to claim 34, wherein the microchannels connect to reservoirs in the microfluidic device and wherein the center-to-center distance of each reservoir corresponds to the center-to-center distance of the wells in the microtiter plate.

36.(Original) The system according to claim 30, wherein the microfluidic device further comprises one or more sensor chambers for containing one or more sensors.

37. (Original) The system according to claim 36, wherein the one or more sensor chambers is for containing one or more cells.

38. (Original) The system according to claim 30, wherein microfluidic device comprises at least one electrical element for performing planar patch clamp analysis.

39. (Cancelled)

40. (Currently Amended) The system according to <u>any one of claims 28, 29, 48 or 49</u> ~~claim 28 or 29~~, wherein the macroscale device comprises a pump head connectable to a pressurized air supply.

41. (Currently Amended) The system according to any one of claims 28, 29, 48 or 49 ~~claim 28 or 29~~, wherein the macroscale surface interfaced with a microscale surface is a surface of a device selected from the group consisting of a pump head, pump, degasser, flow meter, injector manifold, a pressure sensor; flow cell; concentration manifold or cartridges; a fitting or connector, a mixer, a compressor, an ultrasonic bed, an extractor, a focusing device, a dialysis chamber, an absorption chamber, a metabolite chamber, a toxicity chamber, a cell chamber, a detector, an RFID tag, a reagent vessel, a separation column, a focusing column, a size exclusion column, an ion-exchange columns; affinity columns; solid-phase extraction beds; a filter; a sieve; a frit; a depth filter, a heater, a heat exchanger, a cooler; a magnetic field generator; electric field generator; electroporation device, patch clamp pipette, and one or more connections thereto.

42. (Original) The system according to claim 41, wherein the detector is selected from the group consisting of a UV/Visible absorbance flow cell, a fluorescence flow cell, a conductivity flow cell, an electrochemical detector, a plasma detector, surface plasmon resonance detector and a mass spectrometry detector,

43. (Original) The system according to claim 41, wherein the detector is a sensor selected from the group consisting of a flow meter, a pressure transducer, a temperature sensor, a chemical sensor, an acoustic sensor, a color sensor, an optical sensor, a bar code sensor, a photothermal sensor, a photoacoustic sensor, and an RFID tag.

44. (Currently Amended) The system according to any one of claims 28, 29, 48 or 49 ~~claim 28 or 29~~, wherein at least one adhesive side of the tape surface is covered by a release liner prior to adhering the device surface of the macroscale or microscale device.

45. (Currently Amended) The system according to claim 28 or claim 48 wherein adhesives on each side of the double sided tape comprise different types of adhesive.

46. (Currently Amended) The system according to any one of claims 28, 29, 48 or 49 ~~claim 28 or 29~~, wherein the adhesive on the tape is patterned onto a backing.

47. (Currently Amended) The system according to any one of claims 28, 29, 48 or 49 ~~claim 28 or 29~~, wherein at least one surface of the tape comprises portions that are coated with adhesive and portions that are not coated with adhesive.

48. (New) A system comprising a macroscale device which is interfaced with a microscale device using double-sided tape to form a stable association between the microscale device and the macroscale device, and wherein the double sided tape comprises a backing with a first side which associates with the macroscale device and second side which associates with the microscale device having at least one microchannel, each side coated at least partially with an adhesive.

49. (New) A system comprising a macroscale device which is interfaced with a microscale device using transfer tape to form a stable association between the microscale device having at least one microchannel and the macroscale device, wherein the transfer tape comprises a backing with a release liner to which an adhesive surface is separably attached, and wherein a bond between the adhesive and backing is weaker than a bond between the adhesive and macroscale device or microscale device.

50. (New) The method of claim 49, wherein the release liner covers the adhesive surface until it is ready to adhere to the macroscale or microscale device, and the release layer has a release coating with a weaker bond with the adhesive layer than the release coating on the backing.

51. (New) The system of claim 1, wherein said system comprises a pressure chamber between the macroscale device and the microscale device.

52. (New) A system comprising a pump head device which is interfaced with a microfluidic device using double-sided tape to form a stable association between the microfluidic device and the pump head device, wherein the double sided tape comprises a first adhesive surface which associates with the pump head device and a second adhesive surface which associates with the microfluidic device, and wherein a pressure chamber is between the pump head device and the microfluidic device.